REFERENCES

ASDELL, S. A. (1964) : Patterns of Mammalian Reproduction, Cornell University Press, Ithaca, New York, p. 130.

CRANDALL, LEE S. (1965) : The Management of Wild Mammals in Captivity, The University of Chicago Press, Chicago & London, pp. 75-77.

HILL, W. C. OSMAN (1937b) : Cited by Crandall, Lee S. (1965).

PRATER, S. H. (1971) : The Book of Indian Animals. Bombay Natural History Society, Bombay, pp. 43-44.

WALKER, ERNEST P. *et al.* (1964) : Mammals of the World, Vol. I, The Johns Hopkins Press, Baltimore, p. 418.

3. ON SOME MELANISTIC SPECIMENS OF HOUSE RAT, *RATTUS RATTUS* (LINNAEUS) [MAMMALIA : RODENTIA : MURIDAE]

It is a well-known fact that the coat colour of rodents, specially the rats, is subject to great variations. But extreme colour variations, commonly known as albinism and melanism, are rare. The latter has been reported in several species of mammals, including rodents, but I find no record of it in *Rattus rattus* (Linnaeus). It is therefore recorded here. The note is based on a collection of five adult rats, *Rattus rattus* (Linnaeus), present in the collection of the Zoological Survey of India. Two are males (Z.S.I. Reg. No. 8366, 8374) and three females (Z.S.I. Reg. No. 8365, 8369, 8370), all collected from Calcutta in the year 1906.

The colour of the body and the tail is completely black, with no line of demarcation between the dorsal and ventral aspects. In three out of five specimens, the pinna is of lighter colour than in the other two.

All measurements are in millimetres and are taken after Ellerman (1963).

MEASUREMENTS :

External : 2 ♂♂—Head and body 181, 182 ; tail 190, 231 ; hind-foot 33, 34 ; ear 23, 24.

3 ♀♀—Head and body 145, 147, 178 ; tail 193, 195, 224 ; hind-foot 33·5, 34·5, 34·5 ; ear 19, 21, 24.

Cranial : 1 ♂—Occipitonasal 42·3 ; nasal 16·0 ; palate 22·3 ; palatal-foramina 7·6 ; diastema 12·0 ; upper tooth-row 6·3 ; bulla 7·2.

3 ♀♀—Occipitonasal 36·8, 39·0, 44·2 ; nasal 13·5, 14·0, 16·3 ; palate 19·3, 20·2, 24·0 ; palatal-foramina 6·5, 6·6, 8·9 ; diastema 10·0, 10·8, 13·0 ; upper tooth-row 6·0, 6·1, 6·8 ; bulla 6·8, 7·0, 7·7.

Different views have been put forward as to the causes of melanism. Keeler & King (1941) are of the opinion that melanism acts as a simple Mendelian recessive character. Rohe (1961) found a melanistic population of the Norway Rat (*Rattus norvegicus*), confined to underground sewers. The fact that the population was completely isolated and that the litters were all melanistic led him to believe that it was a true breeding melanistic colony. Svihla's (1956) finding that heat conservation at

low temperatures does not differ in white from dark coloured rats, shows that melanism does not have any beneficial effect over non-melanistic forms. However, no opinion can be given on this aspect as my observations are based on dead specimens.

Acknowledgements

I am thankful to the Director, Zoological Survey of India, for providing facilities. I am grateful to Dr. B. Biswas for going through the manuscript and to Dr. V. C. Agrawal for valuable suggestions.

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References

Ellerman, J. R. (1963) : The fauna of India including Pakistan, Burma and Ceylon, Mammalia, 3 (Rodentia) (2) (Murinae). Govt. of India, Delhi.

Keeler, C. E. & King, H. D. (1941) : Multiple effects of coat colour genes in the Norway Rat with special reference to the 'marks of domestication'. *Anat. Rec.* **81** : 48-49.

Rohe, D. L. (1961) : Melanistic norway rats in Southern California. *J. Mammal.* **42** : 268.

Svihla, A. (1956) : The relation of colouration in mammals to low temperature. *J. Mammal.* **37** : 378-381.

4. THE 'DAY NEST' OF A RAT

Our house has mosquito netting in the windows. Outside one first-floor bedroom window grows a creeper which we believe is the Rangoon Creeper (*Quisqualis indica*). It has sweet pink and red flowers, fragrant in the evenings. There are some dead branches of the creeper close to the window. On these a few months ago a platform of twigs roughly 5 inches long appeared. For some days we saw no creature near it, but one day we saw a large male rat with a long tail, stretched out upon it. As we were close to the window and looked, he got a bit nervous and slowly got off the platform and hid beneath it. This rat continued to be all day long on this platform for at least a week. Then he disappeared and we wondered if he had been sick and had died. But about a week later, we noticed some activity and saw that the rat had plucked off some leafy twigs from the creeper and arranged them all around the platform and was again lying there, partially hidden from us by the leaves. As the leaves withered, he plucked off more twigs and replaced them. He lay there for over a week in this way and appeared most of the time to be sleeping. Then he again disappeared.